

THE RELAXING EFFECTS OF L-THEANINE

By Shari Barbanel

An amino acid found in green and black tea and some types of mushrooms, L-theanine (*Camellia sinensis*) affects neurotransmitters, which are the body's chemical messengers, according to the Sleep Foundation. Research shows that L-theanine may help improve relaxation, sleep, mental focus, weight loss, reduce blood pressure, boost the immune system and increase cognitive performance, among others.

L-theanine has been shown to act directly on brain chemistry, as it can cross the blood brain barrier, reaching the brain within an hour of consuming it. Studies show that L-theanine can help boost the levels of dopamine, serotonin and GABA (gamma-aminobutyric acid) in the brain, which promotes relaxation, and helps regulate mood and concentration.

In a 2019 study published in the journal *Pharmaceutical Biology*, researchers found that a combination of L-theanine and GABA has a positive synergistic effect on sleep quality and duration as compared to the GABA or L-theanine alone. While a 2019 randomized trial published in the journal *Nutrients* found that healthy adults who took L-theanine over the course of four weeks had a decrease in stress-related symptoms.

In regard to L-theanine's benefits for cognitive health, one study published in *The Journal of Nutrition, Health & Aging*, researchers at National University of Singapore's (NUS) Yong Loo Lin School of Medicine conducted a longitudinal study involving 957 Chinese seniors aged 55 years or older, and found that regular consumption of tea lowers the risk of cognitive decline in the elderly by 50 percent, while those

that carry the APOE e4 gene (who are genetically at risk of developing Alzheimer's disease) may experience a reduction in cognitive impairment risk by as much as 86 percent.

The research team also discovered that the neuroprotective role of tea consumption on cognitive function is not limited to a particular type of tea—so long as the tea is brewed from tea leaves, such as green, black or oolong tea.

“Based on current knowledge, this long-term benefit of tea consumption is due to the bioactive compounds in tea leaves, such as catechins, theaflavins, thearubigins and L-theanine,” said Professor Feng Lei from the NUS Department of Psychological Medicine and lead author of the study. “These compounds exhibit anti-inflammatory and antioxidant potential and other bioactive properties that may protect the brain from vascular damage and neurodegeneration.”

According to WebMD, the recommended dosing for L-theanine is 200-400 mg by mouth daily for four to eight weeks for adults. Those who are pregnant or breastfeeding should avoid taking L-theanine. The Cleveland Clinic stated that some of the reported side effects of L-theanine may include headaches, nausea, dizziness, irritability or diarrhea. It is recommended that people considering taking L-theanine speak to a health care practitioner before taking L-theanine for a specific health issue or to make sure that L-theanine will not interact with any medications a person is currently taking. **VR**

References:

Health.clevelandclinic.org
Sciencedaily.com
Sleepfoundation.org
WebMD.com

TEST YOUR KNOWLEDGE OF L-THEANINE



1.) Where can L-theanine be found?

- a.) Black tea
- b.) Some types of mushrooms
- c.) Green tea
- d.) All of the above

2.) Research shows that L-theanine may help

- a.) Improve sleep
- b.) Reduce blood pressure
- c.) Both a & b
- d.) None of the above

3.) L-theanine has been shown to act directly on brain chemistry, as it can cross the blood brain barrier.

- a.) True
- b.) False

4.) In a study published in *The Journal of Nutrition, Health & Aging*, researchers found that regular consumption of tea lowers the risk of cognitive decline in the elderly by _____ percent, while those that carry the APOE e4 gene may experience a reduction in cognitive impairment risk by as much as _____ percent.

- a.) 86; 50
- b.) 50; 86
- c.) 68; 15
- d.) 15; 68

5.) According to WebMD, the recommended daily dosage for L-theanine for adults is _____ per day for four to eight weeks.

- a.) 200-400 g
- b.) 20-40 g
- c.) 20-40 mg
- d.) 200-400 mg

ANSWERS: 1.) D 2.) C 3.) A 4.) B 5.) D

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